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PTO/SB/21 (09-06)

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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

8

Application Number

10/064,601

Filing Date

07/30/2002

First Named Inventor

Hsu-Feng Ho

Art Unit

2627

Examiner Name

AGUSTIN, PETER VINCENT

Attorney Docket Number

MTKP0018USA

**ENCLOSURES (Check all that apply)**

<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): 1. Copy of the Front Page of Patent 2. Copy of Fee Transmittal submitted on 10/19/2006 3. Copies of the Notice of Recordation dated 09/12/2005
<b>Remarks</b> Request for Certificate of Correction of Office Mistake		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name	North America Intellectual Property Corporation		
Signature	<i>Winston Hsu</i>		
Printed name	Winston Hsu		
Date	JAN 05 2007	Reg. No.	41,526

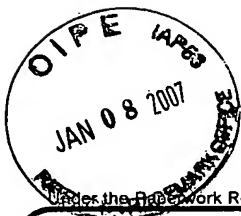
**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature	<i>Stephanie Lai</i>		
Typed or printed name	Stephanie Lai	Date	JAN 05 2007

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/17 (07-06)

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Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

# FEE TRANSMITTAL

## For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT (\$)**0.00****Complete if Known**

Application Number	10/064,601
Filing Date	07/30/2002
First Named Inventor	Hsu-Feng Ho
Examiner Name	AGUSTIN, PETER VINCENT
Art Unit	2627
Attorney Docket No.	MTKP0018USA

**METHOD OF PAYMENT (check all that apply)**☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_☒ Deposit Account Deposit Account Number: **50-3105** Deposit Account Name: **North America Intellectual Property Corporation**

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee  
☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Small Entity Fee (\$)	Small Entity Fee (\$)	Small Entity Fee (\$)	Small Entity Fee (\$)			
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
- 20 or HP =	x	=	

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
- 3 or HP =	x	=	

HP = highest number of total claims paid for, if greater than 20.

HP = highest number of independent claims paid for, if greater than 3.

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50	(round up to a whole number) x	=	

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): \_\_\_\_\_

**SUBMITTED BY**

Signature	<i>Winston Hsu</i>	Registration No. (Attorney/Agent)	41,526	Telephone	3027291562
Name (Print/Type)	Winston Hsu	Date	JAN 05 2007		

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor : Hsu-Feng Ho  
Examiner: AGUSTIN, PETER VINCENT  
Art Unit: 2627  
Patent No. : US 7,145,855 B2 Issue Date : Dec. 5, 2006  
Docket No. : MTKP0018USA

Title: METHOD OF CONTROLLING AN OPTICAL DISK DRIVE BY  
CALCULATING A TARGET FREQUENCY OF A DPLL SIGNAL

To: Commissioner for Patents  
P.O. BOX 1450  
Alexandria, VA 22313-1450

Subject: Request for Certificate of Correction of Office Mistake

The name of the assignee listed on the front page of the Patent is incorrect (Attachment 1). Documents on record indicate this as an Office mistake of consequence.

The applicant hereby requests that a Certificate of Correction be issued under 37 CFR 1.322 to correct the name of the assignee from **Media Tek Inc.** to **MediaTek Inc.** which was correctly listed on the Fee Transmittal submitted on 10/19/2006 (Attachment 2) and the Notice of Recordation dated 09/12/2005 (Attachment 3).

Respectfully submitted,

Winston Hsu

Date: JAN 05 2007

Winston Hsu, Patent Agent No. 41,526

P.O. BOX 506, Merrifield, VA 22116, U.S.A.

Voice Mail: 302-729-1562

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(Note: Please leave a message in my voice mail if you need to talk to me. The time in D.C. is 13 hours behind the Taiwan time, i.e. 9 AM in D.C. = 10 PM in Taiwan).



US007145855B2

(12) **United States Patent**  
**Ho**

(10) **Patent No.:** **US 7,145,855 B2**  
(45) **Date of Patent:** **Dec. 5, 2006**

(54) **METHOD OF CONTROLLING AN OPTICAL DISK DRIVE BY CALCULATING A TARGET FREQUENCY OF A DPLL SIGNAL**

6,285,640 B1 \* 9/2001 Hayashi et al. .... 369/47.29

**FOREIGN PATENT DOCUMENTS**

JP 2000-163890 6/2000  
TW 494400 7/2002

**OTHER PUBLICATIONS**

Transition of TW 494400.\*

\* cited by examiner

*Primary Examiner*—Brian E. Miller  
*Assistant Examiner*—Peter Vincent Agustin  
(74) *Attorney, Agent, or Firm*—Winston Hsu

(57) **ABSTRACT**

A control circuit for an optical disk drive includes a frequency detector, a phase detector, a low pass filter, a voltage-controlled oscillator (VCO), and a controller. The frequency detector and the phase detector both receive an eight-to-fourteen modulation (EFM) signal and a data phase-locked loop (DPLL) signal. The controller can calculate a target frequency and control the VCO to output the DPLL signal according to the target frequency. During a non-seek mode, the VCO outputs the DPLL signal according to output of the frequency detector, phase detector, and low pass filter. During a seek mode or when spindle speed of the optical disk drive changes, the VCO outputs the DPLL signal according to the target frequency. The controller further outputs charge pump currents for the frequency detector and the phase detector and sets an RF equalizer signal and a differential phase detector (DPD) equalizer signal according to the target frequency.

7 Claims, 3 Drawing Sheets

Please correct  
the name of  
the assignee  
from "Media Tek Inc."  
to "MediaTek Inc."

(75) **Inventor:** **Hsu-Feng Ho, Taipei (TW)**

(73) **Assignee:** **Media Tek Inc., Hsin-Chu (TW)**

(\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 485 days.

(21) **Appl. No.:** **10/064,601**

(22) **Filed:** **Jul. 30, 2002**

(65) **Prior Publication Data**

US 2004/0022143 A1 Feb. 5, 2004

(51) **Int. Cl.**  
**G11B 7/00** (2006.01)

(52) **U.S. Cl.** ..... 369/53.34; 369/47.28

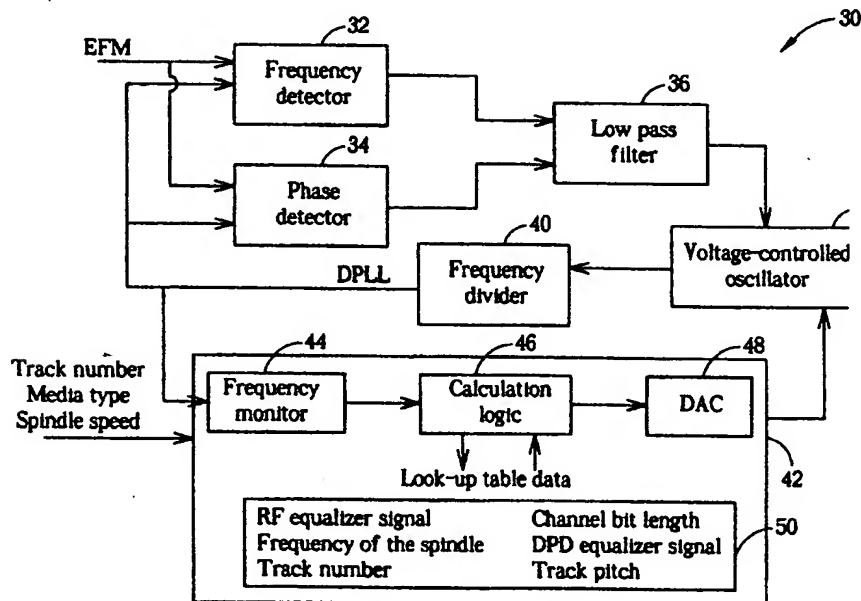
(58) **Field of Classification Search** ..... 369/47.11,  
369/47.15, 47.16, 47.28, 53.34, 47.3, 47.25,  
369/59.15

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,618,897 A \* 10/1986 Johnson et al. .... 360/73.02  
5,636,192 A \* 6/1997 Shimizume et al. .... 369/47.28  
5,745,455 A \* 4/1998 Takeda et al. .... 360/77.04  
5,920,214 A 7/1999 Lee et al.  
6,088,311 A \* 7/2000 Katoh ..... 369/53.34





Attachment &gt;

## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE  
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P.O. Box 1450  
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**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

027765 7590 09/12/2006

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Stephanie Lai	(Depositor's name)
<i>Stephanie Lai</i>	(Signature)
10/19/2006	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/064,601

07/30/2002

Hsu-Feng Ho

MTKP0018USA

5133

TITLE OF INVENTION: METHOD OF CONTROLLING AN OPTICAL DISK DRIVE BY CALCULATING A TARGET FREQUENCY OF A DPLL SIGNAL

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional

NO

\$1400

\$300

\$0

\$1700

12/12/2006

EXAMINER	ART UNIT	CLASS-SUBCLASS
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AGUSTIN, PETER VINCENT

2627

369-047300

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Winston Hsu

2 \_\_\_\_\_

3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

MediaTek Inc.

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

1F, No. 13, Innovation Road 1, Science-Based Industrial Park, Hsin-Chu City,  
Taiwan, R.O.C.

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☒ Issue Fee☒ Publication Fee (No small entity discount permitted)☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

☐ A check is enclosed.☐ Payment by credit card. Form PTO-2038 is attached.☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 50-3105 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature

Winston Hsu

Date

10/19/2006

Typed or printed name

Winston Hsu

Registration No.

41,526

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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT SERVICES DIVISION, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 09/09/2005

REEL/FRAME: 016520/0905  
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).  
DOCKET NUMBER: MTKP0018USA1

## ASSIGNOR:

HO, HSU-FENG

DOC DATE: 07/29/2002

## ASSIGNEE:

**MEDIATEK INC.**

5F, NO. 1-2, INNOVATION ROAD 1,  
SCIENCE-BASED INDUSTRIAL PARK  
HSIN-CHU HSIEN, TAIWAN

SERIAL NUMBER: 11162406

FILING DATE:

PATENT NUMBER:

ISSUE DATE:

TITLE: APPARATUS FOR CONTROLLING AN OPTICAL DISK DRIVE BY CALCULATING A  
TARGET FREQUENCY OF A DPLL SIGNAL

016520/0905 PAGE 2

SHARON LATIMER, EXAMINER  
ASSIGNMENT DIVISION  
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